

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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TITLE : CLEANING METHOD OF SEMICONDUCTOR SUBSTRATE

ABSTRACT : PURPOSE: To safely and readily remove any station on the surface of a silicon wafer, by dipping a semiconductor substrate in a solution of an organic acid being bubbled by ozone or oxygen and thereby treating the substrate.

CONSTITUTION: An organic acid (e.g., formic acid or acetic acid) is filled into a cleaning tank and heated (to 100~150°C). A semiconductor substrate is dipped in this liquid, and ozone or oxygen is supplied from the bottom of the tank so as to bubble the liquid, whereby the substrate is cleaned by the bubbles. Any heavy metal on the wafer forms a formate or an acetate, and any organic contaminant is decomposed by ozone, whereby stains on the surface of the substrate can readily be cleaned out.

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